

**WHAT IS CLAIMED IS:**

1. A method for controlling a priority access and channel assignment (PACA) call in a mobile telecommunication system, the method comprising:

5        sending a new origination message from a mobile station in a PACA state to a base station;

      sending a service request message for the PACA call from the base station to a mobile switching center;

10       requesting from the mobile switching center that the base station assign a traffic channel to the mobile station;

      assigning an available traffic channel to the mobile station to start a communication; and

      distinguishing the PACA call service from an ordinary call service.

15       2. A method as defined in Claim 1, wherein the new origination message includes a parameter for indicating that that the PACA call is requested again.

      3. A method as defined in claim 1, wherein the available traffic channel is assigned to the mobile station to start a communication by the base station.

20       4. A method as defined in claim 1, wherein the PACA call service is distinguished from the ordinary call service by the mobile switching center.

25       5. A method for controlling a PACA call in a mobile telecommunication system, the method comprising:

      determining whether or not an origination message from a mobile station for the PACA call has the same subscriber's registered location as the subscriber's registered location in a visitor location register (VLR);

30       determining that the mobile station has been handed off from a previous base station to a new base station if the subscriber's registered location of the origination message is not the same as that of the VLR;

sending a first PACA call update message to the previous base station; and  
deleting the first PACA call information from the previous base station.

5 6. A method as defined in Claim 5, wherein the deleted first PACA call  
information is stored in a PACA call buffer of the previous base station.

7. A method as defined in Claim 5, wherein the subscriber's location registered in  
the VLR is registered when the mobile station is shifted to a PACA state after sending the  
origination message.

10 8. A method as defined in Claim 5, wherein the origination message is  
determined as the PACA call by detecting a parameter representing the PACA call.

15 9. A method as defined in Claim 8, further comprising:  
determining whether the mobile station is in the PACA state or not, if the  
subscriber's registered location of the origination message does not agree with that of the  
VLR;

determining whether a cell ID of the origination message agrees with the  
origination message registered in the VLR if the mobile station is in the PACA state;

20 determining that the mobile station has sent a new origination message in the  
PACA state if the cell ID of the origination message agrees with that registered in the  
VLR;

sending a second PACA call update message to the previous base station; and  
deleting the second PACA call information from the previous base station.

25 10. A method as defined in Claim 9, wherein the PACA call deleted from the  
base station is previously stored in the PACA call buffer of the base station.

11. A method for controlling a PACA call in a mobile telecommunication system, the method comprising:

    sending a PACA call cancel message from a mobile station in a PACA state to a base station;

5           sending a PACA call update message from the base station to a mobile switching center; and

    sending a mobile station PACA CALL update message from the mobile switching center to the VLR.

10           12. A method as defined in Claim 11, further comprising deleting the PACA call update message from the mobile station.

13. A method for controlling a PACA call in a mobile telecommunication system, the method comprising:

15           analyzing information from a receiving subscriber toward which a call signal is directed; and

    canceling the call signal when a mobile station of the receiving subscriber is in a PACA state.

20           14. A method as defined in Claim 13, further comprising sending a busy tone to a sending subscriber who has generated the call signal.

15           15. A method as defined in Claim 13, further comprising sending a call message to the mobile station of the receiving subscriber when it is not in the PACA state.

25           16. A system for controlling a priority access and channel assignment (PACA) call in a mobile telecommunication system, the system comprising:

    a mobile station configured to send a new origination message in a PACA state to a base station;

30           the base station configured to send a service request message for the PACA call to a mobile switching center;

